Observation from the Covid 19 pandemic

February 2022

Malaysia has had a difficult two years over 2020 and 2021. We along with the rest of the world are facing a pandemic that has caused loss of lives, strenuous strain on healthcare and heavy economic losses from loss of jobs with certain industries like tourism and travel brought to its knees. In December 2021, unprecedented level of flash floods brought property damage and loss of lives to neighborhoods, villages and submerged towns. These if considered in ICAAP terms are likely categorized as "one in one hundred year" events – or events on a 1% likelihood of occurrence. It underlines two important considerations for actuaries - climate change[1] and pandemic[2]. Unfortunately, it remains likely there will be future occurrence of similar events even in the short term. This paper focuses on the outcome of the Covid-19 pandemic.

Actuaries also have to consider the wider impact on demography and the economy following these adverse events. The objective of this paper is to document events from the perspective of an insurer, and to document observations from fellow actuaries in the working group on the Covid-19 impact.

We consider these from two perspectives – firstly by documenting events of the pandemic, this will help provide flavour to the stress scenarios exercise when designing test for future pandemic scenarios. As actuaries, it is important we perform our professional role to ensure insurers remain well capitalized to face future pandemics. Secondly, we consider a longer term perspective of how the pandemic may influence our assumption-setting consideration for both valuation and for pricing of new business. We stop short of questioning how our industry should change in light of these learnings – pertinent examples are, is it time for the introduction of pay as you go motor insurance policies? introduction of advanced digitalization on new business sales (digital insurance) and in simplifying the claims process.

Motor insurance

Motor insurance remains a large part of Malaysia's general insurance net premium. At the height of the pandemic in Q2 of 2020, the industry saw declining business from deferral of insurance renewal and negligible sales of new vehicles. Movement control restrictions however meant lower claims ratio from fewer accidents with lesser vehicles on the road. In addition, the number of suspected industry fraudulent claims was also seen to increase as the economy goes through a tough time.

It is worth mentioning that the different Motor segments exhibited different trends during lockdowns. For example, while Personal Motor vehicles experienced lower usage due to lockdowns and remote work arrangements – specific segments of Commercial Motor vehicles experienced similar, if not higher, usages during the lockdowns as the new norm of intensified delivery businesses.

[1] https://www.actuaries.org.uk/practice-areas/sustainability/research-working-parties/climate-change-working-party
[2] https://covidactuaries.org/

As we came out of the first movement control restrictions, with tax incentives encouraging car sales, motor insurers were vying for insurance premiums after a lackluster performance during the first movement control. As the limitations of movement resulted in claim savings, insurers were then able to channel some of these savings to the consumers through premium discounts and sales incentives.

Mobility also had a strong correlation to number of Covid-19 infected cases. There were several rounds of strict movement control which were implemented throughout 2020 to 2021 and the impact that it has on the mobility of the nation can be seen below.

Phase 1 – MCO 1.0 from 18th March 2020 till 3rd May 2020
Phase 2 - Conditional MCO from 4th May 2020 till 9th June 2020
Phase 3 - Recovery MCO from 10th June till 31st December 2020
Phase 4 – CMCO in the areas with high COVID-19 cases from 14th December 2020 till 31st December 2020
Phase 5 – Recovery MCO from 1st January 2021 till 31st March 2021
Phase 6 – MCO 2.0 from 13th January 2021 till 4th March 2021
Phase 7 – MCO 3.0 from 1st June 2021 to 28th June 2021
Current Measures are on-going for targeted localities.

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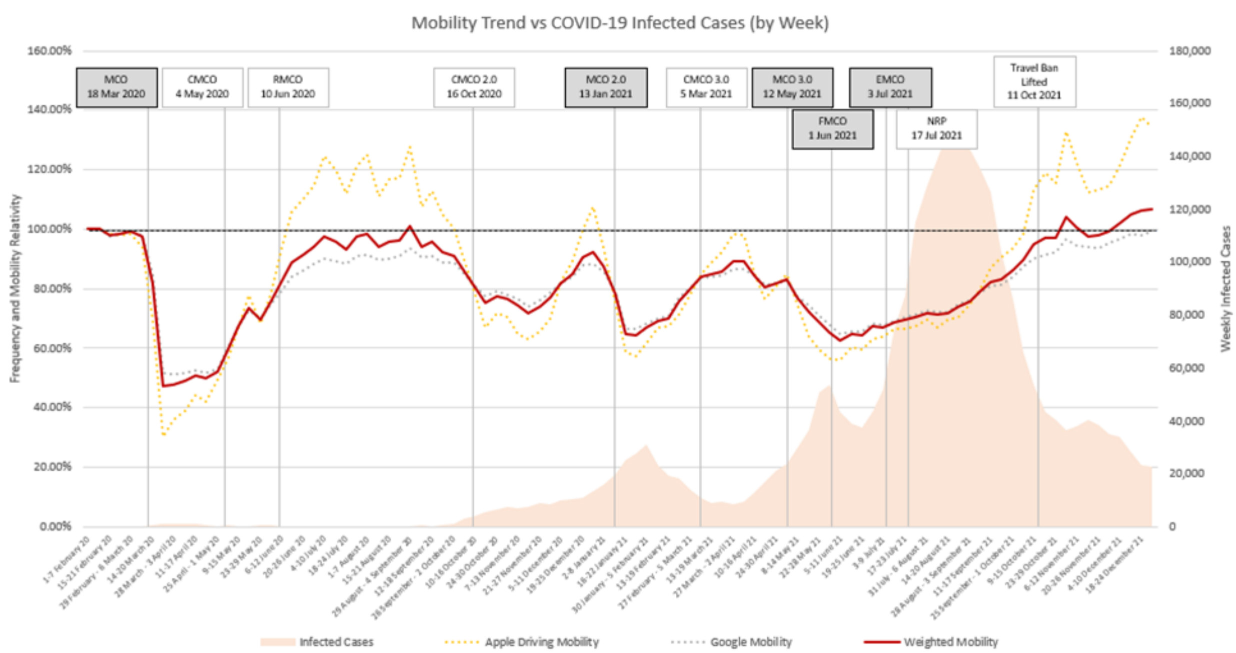


Source: Google COVID-19 Community Mobility Reports - https://www.google.com/covid19/mobility/
Apple Mobility Trends Reports - https://covid19.apple.com/mobility
Our World in Data - Coronavirus Pandemic Country Profile - https://ourworldindata.org/coronavirus/country/malaysia

Mobility(driving) was severely impacted during the first MCO and subsequent MCOs in 2021, and rebounded during the relaxation of this lockdown. Whilst the relaxation of the lockdown is beneficial for the economy, it is also observed that any form of increase in mobility would see a subsequent increase in COVID 19 cases a few weeks later.

The various imposed lockdowns had resulted in the courts not operating at full capacity – hence, the Covid-19 Act 2020 allowed the deferment of the closure of claims files which are time-barred within the initial lockdown periods. For Motor insurance, this was applicable to the third party bodily injury claims and resulted in a temporary shift in payment/settlement patterns compared to historical payment trends.

We have also observed that cost of repairs has also increased significantly compared to pre-pandemic levels from poorer exchange rates and the global increase in the cost of fuel and materials.

Looking forward, as a larger % of the population gets vaccinated, the economy is slowly recovering. Some offices are accepting working from home (which happened for the most part of 2020 and 2021) to become the new norm – if not fully, but partly. Does this mean less time on the road and would this influence future claims experience. Hence, should insurer allow for this new norm in their product design and pricing?

Reserving and pricing actuaries will find their work more challenging when using past data (I.e. either from pre-covid or during lockdown) to estimate the level of claims under a 'new normal' environment. Further, the reserving and pricing actuaries would also need to take into account the potential impacts of (1) significant changes in minimum/blind reserves and (2) Civil Law (Amendment) Act to the long-tailed Motor segment I.e. Motor Act / Third Party Bodily Injury coverage and (3) changing trends due to the new normal adopted. With the impact of pandemic having a significant impact to the data, the isolation of underlying trend for analysis has been more challenging, requiring actuaries to think outside the box.

Property insurance – Business Interruption

In more developed countries, the extension of property insurance in covering infectious/contagious disease tends to be written in a 'looser' way – opening up potentially wide interpretation of what is covered. However, in Malaysia, the Property underwriters tend to be more conservative and the default property insurance (Fire) cover does not include cover for Infectious Disease unless specifically opted for. In addition, even if the Infectious Disease were opted for, there are a few criteria to be fulfilled before any claim payments are eligible. Hence the exposure of COVID 19 claims to property insurer was limited.

There remain concerns whether the precedents set by the UK Supreme Court could impact the judgments of local courts in the interpretation of whether the business interruption arising from the various covid19 lockdowns are covered under current coverage extension/wordings.

However, the property insurance observed a hike in claims ratio over the pandemic-stricken years as there were increased frequency of large losses. As the movement control lockdown were implemented, business activities were restricted and lesser resources were available to ensure proper risk control and management of the facilities. The potential fraudulent claims are also expected to increase as business starts to fail.

Travel insurance

At the start of the pandemic – insurers experienced a significant spike in claims due to payments arising from travel cancellation and curtailments.

Since then, the travel insurance business plummeted significantly as countries closed their borders and imposed various lockdowns. With the re-opening of borders and travel (to some extent) - there remains the need for travel insurance to offer covid-19 related protection, of which insurers and reinsurers alike are somewhat reluctant to provide due to the significant uncertainty involved.

Medical loss ratios

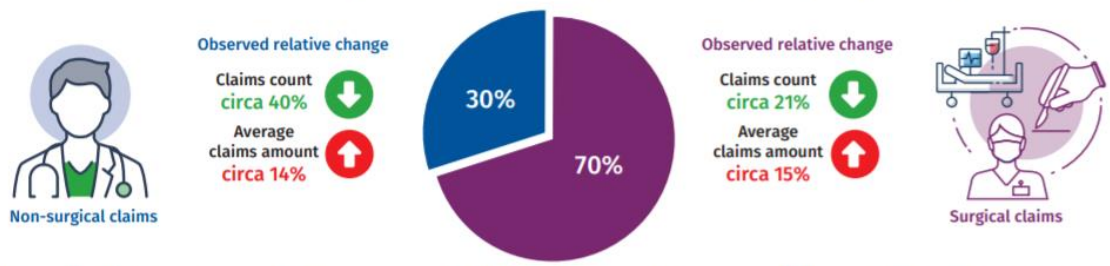
Historically, medical claims have been subject to ever-increasing claims inflation year on year with loss ratios for most insurers increasing steadily before hitting a price adjustment phase. A pandemic scenario would typically have actuaries increasing the medical loss ratios assumed. However, during the pandemic it was observed that loss ratios did not increase significantly – they in fact largely stabilized or even reduced to a certain extent for specific coverages. To understand this, we need to appreciate that in Malaysia, the cost of healthcare for Covid-19 patients during the pandemic were borne directly by the government in government run medical facilities. Hence, the exorbitant cost of prolong stays in ICU, oxygen respirators and related healthcare were not felt by insurers.

The other observations relate to public sentiment or behavior. Elective surgeries were largely postponed by the insured, for fear of the contracting the virus in medical facilities. Hence, there were fewer claims (reduced frequency). However, those that needed medical care were more serious cases and hence saw larger claims size (higher severity). This observation was documented in Bank Negara's financial stability review report[3] (extracted below).

[3] https://www.bnm.gov.my/documents/20124/4782528/fsr2021h1_en_ch2_fi.pdf (page 43)

Diagram 2.2: Claims Experience Over the Pandemic Period by Claims Type

Lower medical claims incidence but average medical claims inflation continued to rise during the pandemic period



Note: The annualised relative change in claims count and average claims amount is based on a comparison between 2019 experience to that over the pandemic period (2020 up to 1H 2021). The annualised relative change experienced by each individual life insurer and family takaful operator may differ from the above aggregate statistics

Source: Bank Negara Malaysia estimates using data from life insurers and family takaful operators with significant medical business

Going forward as public sentiment reverses, the industry expects the suppressed latent claims to re-emerge. Further, the lower incidences of hospitalization from common non-surgical treatments such as stomach flu and dengue fever observed during the pandemic are expected to return to past trends. From an actuarial perspective, the claims liabilities are probably lower than observed in the past however the premium liability in 2022 (from future events) are likely to go back to normal levels or increase from the latent claims.

One further thing to note is as Covid-19 moves from being classified as a pandemic to endemic – the government is expected to reduce support on Covid-19 medical treatments, which means individuals would need to cover the cost of treatment going forward. Whether this would be covered by insurance will depend on the clauses within individual medical policy contracts which is a developing area. However, as the community is now largely vaccinated, the severity of Covid 19 hospital admissions may not be as costly as we observed a lower ICU utilization rate of Covid 19 cases. There are also lower Covid -19 hospital admission rates as observed by lesser cases categorized at level Cat 3-5[4].

All of the above observations would create challenges in setting the appropriate loss ratio assumption for both pricing and valuation actuaries. Further question marks are also likely to arise. For example, on IBNR assumptions, some insurers observed a longer time between policyholders incurring the claims and claims being reported to the insurer. However, this could be restricted to the pandemic period and

[4] The treatment plans for COVID-19 patients in Malaysia are based on 5 levels of severity or clinical category of patients:

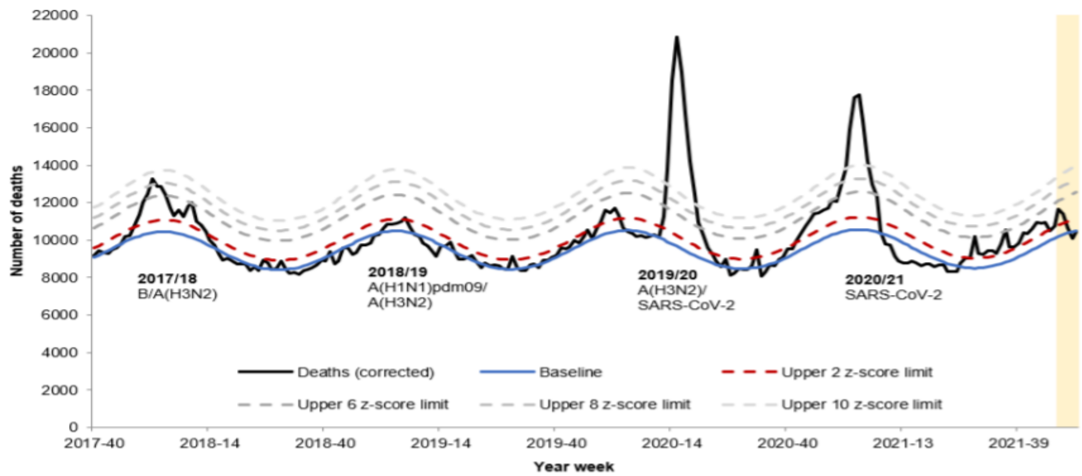
- **Category 1**: No symptom
- **Category 2**: Symptomatic without lung infection
- **Category 3**: Symptomatic with lung infection
- **Category 4**: Symptomatic with lung infection and need oxygen supplementation
- **Category 5**: Critical patients with multiple organs complication

may not be expected to continue.A second question mark is the challenge in pricing for long covid related claims as data on this is still sparse.

Mortality rates

For life insurers, pandemic is typically met by an increased mortality rate assumption. This “excess mortality”[5] is to be applied additionally on best estimate and provision of adverse deviations (PRAD) during the assumed pandemic period. One of the more detailed studies on mortality is conducted by a long running government operation within the UK[6]. What they observed during the beginning of the pandemic was that the excess mortality was still within predicted margins – however in certain period these have gone dramatically bust. We show below an example of the results of the study in England.

Figure 1: Weekly observed and expected number of all-cause deaths in all ages, with the dominant circulating respiratory virus, England, 2017 to week 52 2021



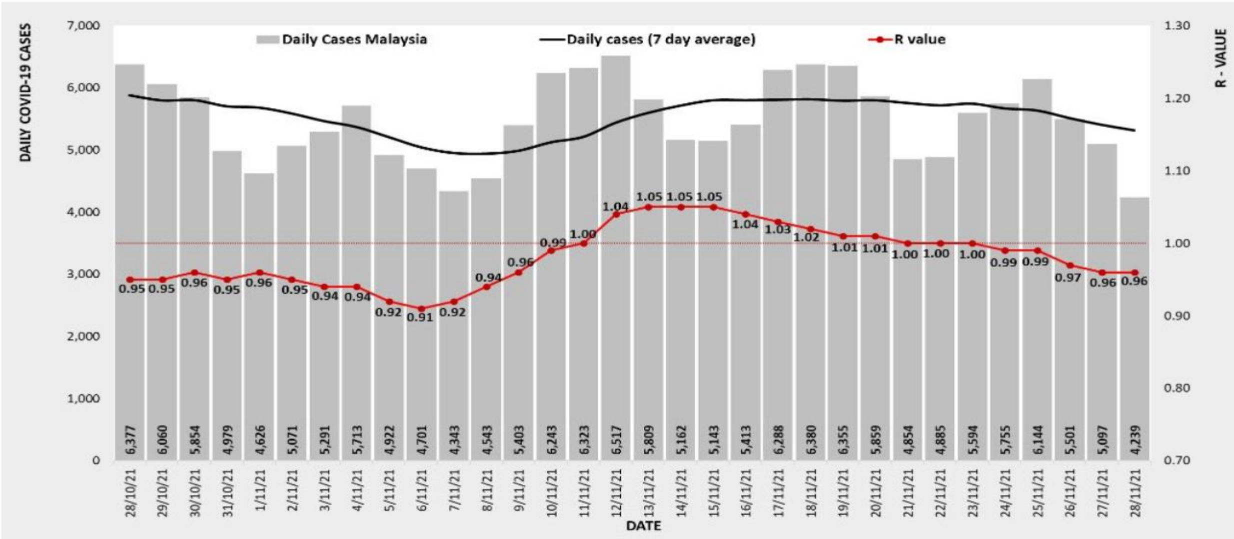
Reference: https://www.gov.uk/government/statistics/excess-mortality-in-england-weekly-reports

Here in Malaysia, The Life Association of Malaysia has recently commissioned a mortality study for the period 1996 – 2020. Results of the study should be available within the year.

[5] Excess mortality is a term used in epidemiology and public health that refers to the number of deaths from all causes during a crisis above and beyond what we would have expected to see under ‘normal’ conditions https://ourworldindata.org/excess-mortality-covid

[6] https://www.gov.uk/government/statistics/excess-mortality-in-england-weekly-reports

In Malaysia, we were spared the full brunt of the pandemic due to decisive government actions. The R0[7] in Malaysia for 2021 hovered about 1.

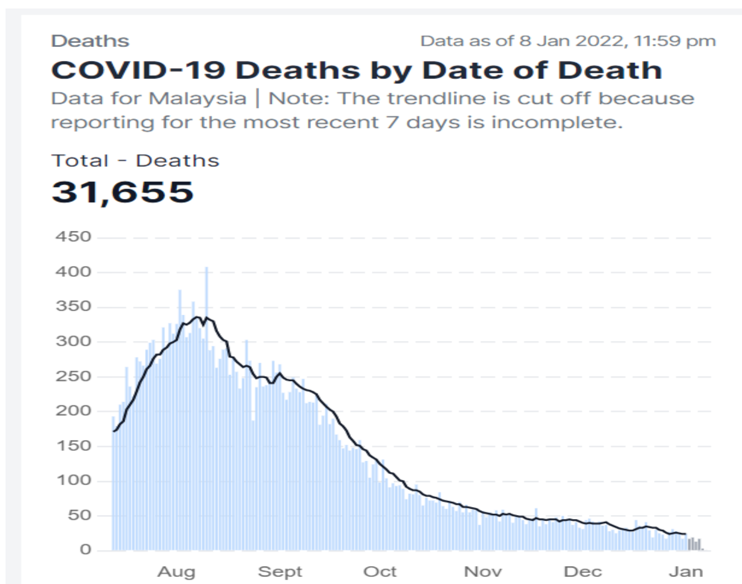


Reference: https://covid-19.moh.gov.my/kajian-dan-penyelidikan/nilai-r-malaysia/1121/r-naught-malaysia-hari-ini-28112021

The movement control order ("MCO") which heavily restricted movements from 18 March to 3 May 2020 was painful to the economy but saved the pandemic spreading to (at the time) an unvaccinated population. Subsequently various levels of MCO were initiated depending on the case and death counts.

The chart tracking deaths by date shows that the number of deaths has since dropped from the height of the pandemic, largely as 78.5%[8] as at January 2022 of the Malaysian population is now fully vaccinated.

The vaccination rate translates to 98% of adults. Vaccination program for ages 5 to 11 is currently on-going.



[7] R-naught (R0) is a value that can be calculated for communicable diseases. It represents, on average, the number of people that a single infected person can be expected to transmit that disease to.
[8] https://covidnow.moh.gov.my/deaths/

As witnessed globally, the distribution of deaths were highly skewed towards the older ages[9].

COVIDNOW Malaysia | Home | Vaccinations | Deaths | Ventilations | ICU | Hospitalisations | Cases | EN

	0 - 4	5 - 11	12 - 17	18 - 29	30 - 39	40 - 49	50 - 59	60 - 69	70 - 79	80+
1 week ago	0.0%	0.0%	0.6%	1.8%	1.8%	8.9%	11.2%	20.7%	32.0%	23.1%
2 weeks ago	0.5%	0.0%	0.0%	1.5%	4.5%	7.5%	10.5%	25.0%	28.5%	22.0%
3 weeks ago	0.4%	0.9%	0.0%	2.6%	2.2%	7.0%	14.0%	23.3%	23.7%	25.9%
4 weeks ago	0.4%	0.0%	0.0%	1.3%	4.2%	3.8%	14.0%	25.0%	26.3%	25.0%
5 weeks ago	0.0%	0.4%	0.0%	1.1%	3.7%	8.4%	15.3%	25.6%	27.4%	18.3%
6 weeks ago	0.0%	0.0%	0.0%	1.6%	3.5%	8.2%	13.9%	23.7%	27.1%	22.1%
7 weeks ago	0.3%	0.0%	0.0%	0.3%	2.3%	5.5%	15.0%	29.3%	27.7%	19.5%
8 weeks ago	0.6%	0.0%	0.3%	0.0%	2.6%	7.8%	13.0%	24.1%	25.5%	26.1%
9 weeks ago	0.9%	0.0%	0.0%	1.4%	1.2%	6.9%	12.9%	23.9%	25.6%	27.3%
10 weeks ago	0.0%	0.0%	0.2%	2.4%	3.1%	6.0%	12.4%	22.9%	27.6%	25.5%
11 weeks ago	0.4%	0.0%	0.2%	1.0%	4.6%	6.6%	11.6%	25.9%	22.4%	27.3%
12 weeks ago	0.2%	0.4%	0.4%	1.1%	3.8%	6.9%	13.4%	24.1%	28.7%	21.1%

[7] https://covidnow.moh.gov.my/deaths/

From the table below, the efficacy of the vaccines to prevent death varied. However, this did not take into account the characteristics of the underlying population taking each vaccine. For example, AZ vaccine which has the lowest death rate in the table, is typically taken by the younger (below age 60) and healthier population. Other vaccines were delivered first to the elderly and those with co-morbidity. The choice of vaccines was limited as the nation was racing against time to be vaccinated. However it does not detract from the fact that those unvaccinated remain at risk and have a higher likelihood of death on contracting the virus. Based on the above table from MOH, the death rate due to Covid-19 infection of the unvaccinated is 2.87 out of 1000 compared to 0.22 in a 1000 of those vaccinated.

Vaccine Effectiveness in Malaysia

Status of Vaccination	Death Rate	Effectiveness against Death [2]
Fully Vaccinated [1]	0.022%	92.3%
Pfizer	0.011%	96.1%
Sinovac	0.041%	85.7%
AstraZeneca	0.006%	97.8%
Sinopharm	0.008%	97.1%
Unvaccinated	0.287%	

[1] *Fully vaccinated are defined as individual who has received 2 doses of Covid-19 vaccines for more than 14 days and individual who has receive single dose of Covid-19 vaccines for more than 28 days*
[2] *Effectiveness against Death = 1 – (Death % Each Vaccine Category / Death % for Unvaccinated)*

Source: Ministry of Health Malaysia - https://github.com/CITF-Malaysia/citf-public/blob/main/vaccination/vax_malaysia.csv

[9] https://covidnow.moh.gov.my/deaths/

What we learnt from the pandemic:

i. The Covid-19 pandemic impact is uneven across ages. Older ages were more susceptible to deaths -75% of deaths are above 60. Children below 18 although carriers were mostly asymptomatic and did not seem to exhibit critical/fatal symptoms.
ii. Infected patients with co-morbidity across age groups were worse-off.
iii. Higher number of ICU utilization and deaths rates of the unvaccinated against vaccinated

What was, in hindsight, not surprising is the lower accident-related deaths in particularly during the various MCOs. On employee benefit and mortgage business, insurers have anecdotally noted lower reported death. However, insurers are expecting a possible delay in reporting on bancassurance and group business given working from home ("WFH") is the new norm and may render some offices less efficient. IBNR provisions typically uncommon for life insurers should now be considered.

The pandemic is also not yet over – new variants continue to emerge. The Omicron strain has prompted travel restrictions amidst the busy Christmas travel period. Closer to our industry, reinsurers are assessing term rates. There have hikes in term rates offered in countries in the Asia Pacific region like India[10] and Australia and the move is likely to make its way to the reinsurance market here.

The other consideration is the status of lives who have survived Covid-19 infections, whether health complications would render them impaired lives. A recent news article[11] reported that around 98% of new cases are asymptomatic or mild. However, for the 2% the cases can be severe. For some, lasting health effects may include long-term breathing problems, heart complications, chronic kidney impairment, stroke and Guillain-Barre syndrome — a condition that causes temporary paralysis[12]. Some adults and children experience multisystem inflammatory syndrome after they have had COVID-19.

In short, there is a higher probability of adverse mortality rates across the insured population. The adverse mortality experience is highly skewed towards the older ages, including those above 50. This is compounded by poorer health of the segment of Covid-19 Category 4 and 5 survivors.

With IFRS 17 stripping out insurance service components against investment components, insurers' products are increasingly going back to mainly protection cover, rather than savings. Hence the question for the actuary setting reserving basis and pricing basis - Should mortality rates be increased and for what length of period? The answer may be yes but these are not easy quantifications.

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[10] https://www.asiainsurancereview.com/News/View-NewsLetter-Article/id/78932/Type/eDaily/India-Life-insurers-raise-term-life-premium-rates-under-pressure-from-reinsurers

[11] https://www.thestar.com.my/news/nation/2022/01/09/covid-19-almost-99-of-2888-new-cases-on-sunday-jan-9-in-categories-one-and-two-says-health-dg

[12] https://www.mayoclinic.org/diseases-conditions/coronavirus/in-depth/coronavirus-long-term-effects/art-20490351#:~:text=In%20some%20people%2C%20lasting%20health,they%20have%20had%20COVID%2D19%20.

The Economy and Investment Performance

Malaysia's economy took a hit during 2020 and 2021 – several industries such as travel, F&B outlets, retail suffering worse fates than others. Many Malaysians lost their jobs and livelihood. Malaysia's Department of Statistics announced that the country's unemployment rate for May 2020 was at 5%, or 778,800 people, the highest in almost a decade[13]. More than a year later, in October 2021, the unemployment rate has only declined to 4.3%. However, the underlying business for insurance were more focused on the M40 and T20 segment and hence the hardships faced by the B40 and the financially vulnerable segment did not significantly impact the industry. On the back of this scenario, there is now a higher appreciation of life and health insurance coverage - persistency on life insurance has improved. However, new business on traditional distribution channels was impacted by limitations on face to face sales. Direct channels generated interests and were seen as a viable alternative for simpler insurance needs - for example, online motor aggregators such as Bjak.

An increased interest and take-up of insurance has been observed since the pandemic. Most notably, the Perlindungan Tenang Voucher (PTV) program by the Government of Malaysia succeeded in enrolling 1.7 million Malaysians[14] from the B40 segment between 30th September 2021 to 31st December 2021 in various Perlindungan Tenang[15] (microinsurance) products offered by insurance and takaful operators. The government has increased the allocation of the PTV program to RM75 from 1 January 2022.

We saw from the pandemic that our insurance industry is well capitalized to meet unexpected challenges. To manage some of the short term volatility in the Capital Adequacy Ratios that in normal circumstances would trigger mitigating actions by the insurer and the regulator, Bank Negara introduced some relaxation on the computation of interest rate risk charges[16]. These charges were to essentially capture the mismatch of assets and liability movements on interest rate movements.

There were also measures imposed on insurers to allow deferral of premium payment, without interruption of cover. This was available on application up to December 2021 but was not significantly taken up by policyholders.

[13] Key Statistics of Labour Force in Malaysia https://www.dosm.gov.my/
[14] PTV Utilisation Daily Report [2021 - RM50] 19JAN2022
[15] www.mycoverage.my/perlindungan_tenang/
[16] https://www.bnm.gov.my/documents/20124/1395181/ch1.pdf

Extract from BNM's publication: Coping with COVID-19: Risk Developments in the First Half of 2020

Diagram 4: Regulatory and Supervisory Measures to Facilitate Premium/Contribution Deferment

Enhanced risk capture in line with RBC enhancements

- Adjustments to the stress factor caps of interest/profit rate risk capital charges, from 40% to 30%, effective from 31 March 2020
- Consideration for ITOs to adopt alternative enhanced methodologies for calculating interest/profit rate risk capital charges

Temporary measures to facilitate assistance to affected policyholders/takaful participants*

Capital	• Waive credit risk capital charge for exposures related to deferred premiums/ contributions • Allow drawdown of capital buffers below the Individual Target Capital Level on a case-by-case basis
Investment-linked business	• Flexibility on compliance with sustainability requirements for premiums/ contributions • Simplified disclosure of sustainability outcomes for policy/certificate alterations, subject to appropriate safeguards
Reverse repo	Allow access to the Bank's reverse repo facility to meet liquidity needs

Ease compliance and operational burden

- Extend timelines for regulatory, supervisory and statistical submissions

ITOs also responded responsibly to the pandemic – for example insurers under Life Insurance Association of Malaysia offered additional relief measures for policyholders in facing the COVID-19 crisis[17]. The Life Insurance Association of Malaysia (LIAM), Persatuan Insurans Am Malaysia (PIAM), and Malaysian Takaful Association (MTA) have set aside a RM 10 million Covid-19 Test Fund, which was set up to support the government's efforts to conduct more tests on Malaysians who are exposed to the Covid-19 virus.

Bank Negara's financial stability report[18] noted that the insurance and takaful sector recorded lower profitability during the first half of 2021 compared to the same period in 2020, the main driver being weaker investment performance. To reiterate, lower performance not from poor underwriting results due to the pandemic but driven by poor investment performance. In subsequent periods, the underwriting experience for life insurance is likely to have worsened.

Life insurers in Malaysia are largely invested in fixed income with some exposure to domestic equities. With the availability of GII and sukuks, shariah approved equity white list in Malaysia, takaful operators assets are held similarly. On the fixed income portfolio, Asset Liability Management ("ALM") consideration meant that durations of assets against liabilities are not significantly wide with many ITOs pursuing a more matched position in their choice of assets. When interest rates and yields dropped

[17] Life-Insurance-Companies-Offer-Additional-Relief-Measures-for-Policyholders-in-facing-the-COVID-19-crisis_21032020_2a.pdf (liam.org.my)
[18] https://www.bnm.gov.my/documents/20124/4782528/fsr2021h1_en_ch2_fi.pdf

during the early part of the pandemic, ITOs actually saw a run on their fixed income assets with values of their portfolio increasing. However, in the same period equity market suffered a sharp drop.

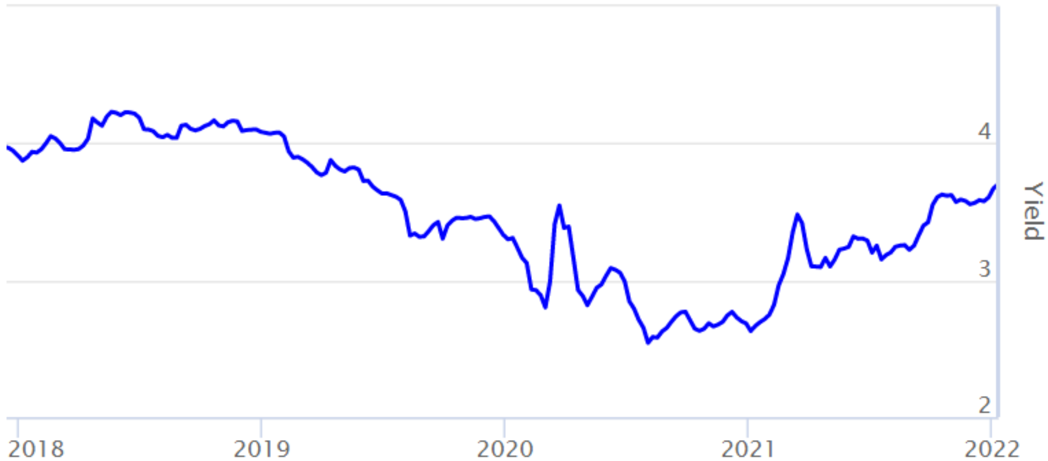
The decrease in interest rates put pressure on ITOs with longer liabilities. Typically, asset duration is still comparatively shorter as liability duration on insurance and takaful products can be long (for eg on mortgage related credit protection types and on whole life plans).

The equity market later improved – primarily due to an active retail market, on the back of growth of glove stocks in response to the pandemic. To provide some context - Top glove was trading at sub RM2 pre-pandemic and reached RM9.39 at its peak in August 2021 – this increase seen over a very short period.

Recently, the US Feds projected multiple rate hike in 2022 driving an increase in interest rate in tandem with a recovering economy. This has resulted in pressure on fixed income asset value in the past few months. The volatility in yield makes it even more so important that insurers keep a duration matching liabilities and remain vigilant on changing circumstances.

Interest rate movements

Malaysia's 10 year government bond yield.



Reference: http://www.worldgovernmentbonds.com/bond-historical-data/malaysia/10-years/

FTSE Bursa Malaysia KLCI (^KLSE) index movement

Reference: https://finance.yahoo.com/chart/%5EKLSE#

The fluctuations in yields and market value were felt more acutely by participating funds with legacy business. Bonus scales need prior Bank Negara approval to be revised and prospective reserve were based on a fund based yield rendering the liability reserves bases "fixed" in contrast to a fluctuating market.

Although earnings were undoubtedly impacted, the industry proved resilient in meeting solvency and capital requirements, in part from robustness of applying Internal Capital Adequacy Assessments ("ICAAP").

Conclusion

The Covid -19 pandemic has given insight into a real case adverse scenario and challenged some of the assumptions actuaries have traditionally made in stress testing to assess adequacy of capital (ICAAP).

An equally crucial challenge ahead is to ensure assumptions underlying reserving and pricing are robust enough to allow for expected experience under the new norm. This is by no means an easy feat and the actuarial control cycle, an important part of the actuarial skill set where experience is constantly monitored and assumptions adjusted, should be effectively utilized to this end.

Byword: *Please note that the paper was completed at the end of January 2022. Observations were made up to that period only. Hence, current evolving developments have not been accounted for. Additionally, this white paper represents the views of the working committee members and may not necessarily represent the views of the Actuarial Society of Malaysia or the companies the members work for.*

The paper was also prepared with a specific term of reference in mind – specifically to facilitate learnings from the recent pandemic experience for member actuaries of the ASM to take into account when forming judgements in their professional work. It may not be suitable for other purposes. Please obtain the permission of the Actuarial Society of Malaysia prior to publishing this report in any media/channels or in making any reference to this paper.

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Caveat: This white paper represents the views of the working committee members and may not necessarily represent the views of the Actuarial Society of Malaysia or the companies the members work for.

Terms of reference:

The ASM Covid 19 working group was established on 25th February 2021. The aim of the working group is to facilitate learnings from the recent pandemic experience for member actuaries to take into account when forming judgements in their professional work. For example, in pricing products, setting terms and conditions of insurance products, for valuation purposes in setting realistic estimates of reserves, in stress testing work such as testing resiliency of insurance funds to meet possible future pandemics.

Both the life and general insurance industry were faced with similar challenges during the pandemic. While generally and perhaps surprisingly, the underwriting experience was better due to the unique circumstances in Malaysia (expanded in the white paper) both were impacted by poor new business sales due to restrictions in movement control.

The paper aims to document the industry's experience by providing an analytical outcome, a narrative of the events and the potential implication for actuaries to consider in performing their professional work. This will cover the key areas such as mortality/morbidity, loss ratios for P&C, persistency/renewal experience, new business and investment volatility (interest rate, equity returns).

Useful reference:

The official Malaysia government website for data and insights on COVID-19 :
https://covidnow.moh.gov.my/

https://www.soa.org/resources/research-reports/2020/impact-coronavirus/

https://covidactuaries.org/

https://actuaries.asn.au/microsites/pandemics-resource-centre/covid-19-articles